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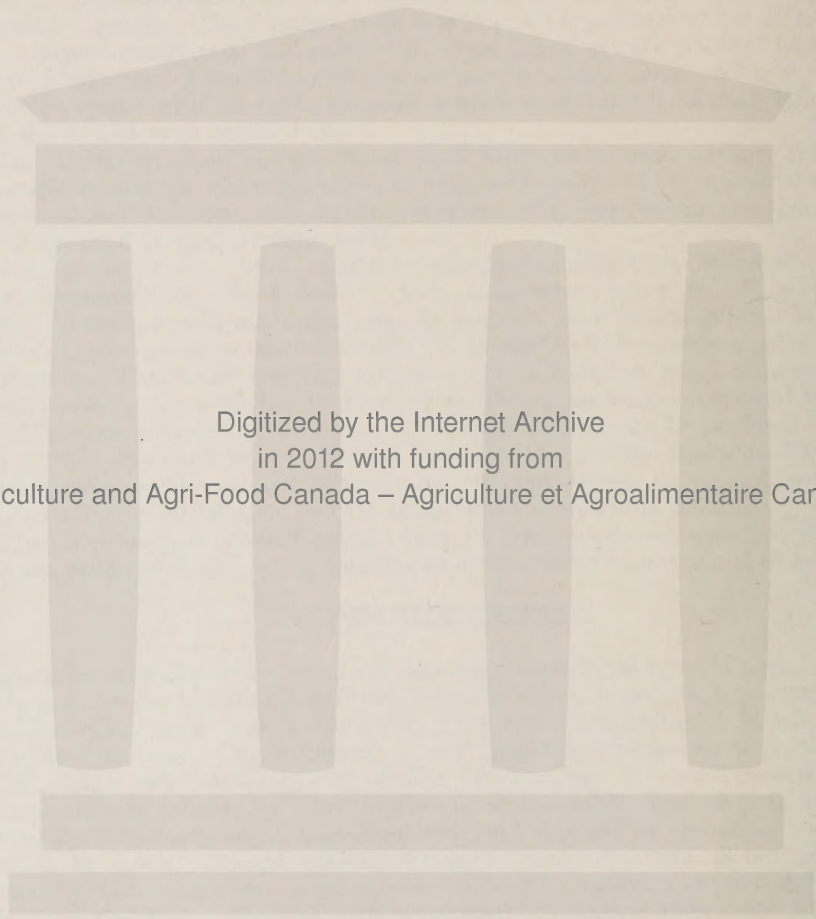

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DEPARTMENT OF AGRICULTURE

OFFICE OF THE DAIRY COMMISSIONER

OTTAWA, August 24, 1917.

THE MANUFACTURE OF BUTTERMILK FROM SKIMMED MILK.

The finest quality of buttermilk is probably that produced by churning clean-flavoured cream which has been properly ripened with the aid of a pure culture of lactic acid. Surplus skimmed-milk may, however, in many cases, be profitably converted into an artificial buttermilk of practically the same composition and quality as the natural buttermilk.

In making artificial buttermilk the skimmed-milk may or may not be pasteurized. In either case about 10 per cent of clean flavoured lactic acid culture should be added to the skimmed-milk which is maintained at a temperature of 70° F. until coagulation takes place. If the time required to produce coagulation is too long the process should be hastened by increasing the percentage of culture used, rather than by raising the temperature. Raising the temperature above 70° F. will usually result in a product of inferior flavour.

As soon as coagulation has taken place the curdled milk is transferred to the churn which is revolved for thirty to forty minutes as in churning cream. If the skimmed-milk is allowed to stand long after coagulation takes place before being churned, the whey and curdy matter of the finished product will show a greater tendency to separate. The churning breaks the curd into fine particles producing a smooth velvety buttermilk which is difficult to distinguish from a good natural product. As soon as the artificial buttermilk is drawn from the churn it should be strained to remove any particles of curd which may not have been broken up in the churning process. The temperature of the product should at once be reduced to at least 50° F. to retard the development of acidity and of undesirable flavours.

Artificial buttermilk may also be satisfactorily produced in a small way in the home. A clean fruit jar of suitable size may be partially filled with clean fresh skimmed-milk which is allowed to sour naturally at a temperature of 70° F. to 75° F. When coagulated, the milk should be vigorously shaken for a few minutes in the closed jar. It may now be strained to remove any lumps of curd not finely broken up by the agitation after which it should be kept in a cool place. If a clean pleasant flavour is obtained by such natural souring and the artificial buttermilk is to be made frequently, it is advisable to add a few ounces of the first artificial buttermilk to the next quantity of skimmed-milk to be soured. Thus the desirable flavour may be reproduced from time to time in the same manner as yeast is propagated.

The composition of such artificial buttermilk is practically the same as that of natural buttermilk, the only difference being that the latter usually contains slightly more milk fat. The percentage of milk fat in the artificial buttermilk may be increased to approximately that of natural buttermilk by adding to each one hundred pounds of skimmed-milk before souring, two quarts of whole milk.

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International Dairy Congress
[Reports and proceedings]

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